

CUSTOMER NO.: 24498
Serial No. 10/518,996

PATENT
PU020307



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences

Inventor(s) : Shaily Verma et al.
Serial No. : 10/518,996
Filed : December 21, 2004
Title : REGISTRATION OF A WLAN AS A UMTS ROUTING
AREA FOR WLAN-UMTS INTERWORKING
Examiner : Naghmeh Mehrpour
Art Unit : 2617
Conf. No. : 7008

APPEAL BRIEF

Mail Stop: Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

May It Please The Honorable Board:

This is Appellants' Brief on Appeal from the Examiner's rejection, contained in the Office communication dated 13 April 2009, of Claims 1, 2, and 5-18, all of the presently active Claims. The fee for filing this Brief has already been paid. The Appellants waive an oral hearing for this appeal.

Please charge the \$130 fee for the Petition for a One Month Extension, and any additional fees that may be due, or credit any overpayment, to Deposit Account No. 07-0832. Enclosed is a single copy of the Brief.

I. REAL PARTY IN INTEREST

The real party in interest of Application Serial No. 10/518,996 is the Assignee of record:

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July 28, 2009
Date

Patricia M. Fedorowycz

II. RELATED APPEALS AND INTERFERENCES

A previous appeal was filed on 12 November 2008. The Office communication of 13 April 2009 reopened prosecution in response to the brief filed on 29 December 2008, effectively dismissing the appeal.

III. STATUS OF THE CLAIMS

Claims 3 and 4 have been canceled.

Claims 1, 2 and 5-18 have been rejected. The rejection of all of these Claims is appealed.

IV. STATUS OF AMENDMENTS

All amendments were entered and are reflected in the Claims included in Appendix I.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent Claim 1 claims a method for registering a wireless local area network as a wireless network routing area (page 3, lines 10 to 12) comprising the steps of:

- determining a location of a service request from a user within a wireless network, which comprises a packet-based support node (page 9, lines 1-17);
- determining whether the location is in or near a wireless local area network access point (page 9, lines 18 to 22);

- if at or near the wireless local area network access point, maintaining packet data protocol context while servicing the service request using the wireless local area network such that interworking between the wireless local area network and the wireless network is provided (last paragraph of Claim 1 as filed).

Independent Claim 11 claims a system for employing a wireless local area network as a wireless network routing area (page 3, lines 10 to 12), comprising:

- a wireless network, which is capable of determining a location where a service request is made (page 9, lines 1 to 17);

- the wireless network comprising a packet-based support node, which determines if the request can be serviced through a wireless local area network;

means for maintaining packet data protocol context while servicing the request using the wireless local area network to provide smooth handoff between the wireless local area network and the wireless network (Claim 11 as originally filed).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The Examiner has rejected Claims 1, 2, 5-11, 13, 14, 16 and 18 as unpatentable under 35 USC 103 (a) over Sundar et al., US 2003/0134638 in view of Hurtt et al., US 2004/0228347.

VII ARGUMENT

**Rejection of Claims 1, 2, 5-11, 13, 14, 16 and 18 under 35 USC 103 (a)
over Sundar et al. (US 2003/0134638) in view of Hurtt et al (US
2004/0228347)**

Claims 1 and 11

This invention relates to a method and system for using a wireless local area network as a wireless network routing area, in which packet data protocol context with the wireless network is maintained while servicing a service request using the wireless local area network. Because packet data protocol context with the wireless network is maintained, a fast transition back to the wireless network results when the user leaves the wireless local area network access point. Nowhere is this invention shown or suggested by Sundar et al. Nowhere does Sundar et al show or suggest:

“maintaining packet data protocol context while servicing the service request using the wireless local area network”,

as specifically set forth in Claims 1 and 11. The Examiner appears to agree that Sundar et al. does not disclose maintaining packet data protocol (PDP) context while servicing the request using the WLAN such that interworking between the WLAN and the cellular network is provided. The Examiner looks to Hurtt et al. for this feature.

Hurtt et al. relates to roaming arrangements between cellular networks. If a mobile station desires to communicate with a party in another network, there must be some arrangement between the networks for billing, or the communication will be rejected. In

paragraph 0068 Hurtt et al. maintains PDP context until the connection is completed. Nowhere does Hurtt et al. show or suggest:

“maintaining packet data protocol context while servicing the service request using the wireless local area network”,

as specifically set forth in Claims 1 and 11. Hurtt et al. does not relate to a wireless local area network. Rather, Hurtt et al. relates to roaming arrangements between cellular networks. Hurtt et al. does not maintain packet data protocol context while servicing a service request. Rather, Hurtt et al. only maintains packet data protocol context until communication between the cellular networks has been established. Even if the system of Hurtt et al. were to be combined with the system of Sundar et al, the instant invention would not be obtained, since the combination would not maintain packet data protocol context while servicing the service request. It is therefore clear that Hurtt et al. and Sundar et al., taken either separately or in combination, do not affect the patentability of Claims 1 and 11.

Claims 2, 5-10, and 12-18

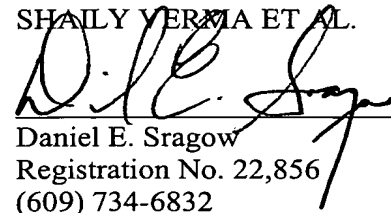
Claims 2 and 5 to 10 are dependent from Claim 1 and add further advantageous features. The Appellants submit that these subclaims are patentable as their parent Claim 1. Similarly, Claims 12-18 are dependent from Claim 11, and add further advantageous features. The Appellants submit that these subclaims are patentable as their parent Claim 11.

VIII. CONCLUSION

Since neither of the cited references, taken either separately or in combination, affect the patentability of either of independent Claims 1 and 11, or dependent Claims 2, 5-10 and 12-18, the Appellants submit that the rejection of all Claims should be reversed.

Respectfully submitted,
SHAILY VERMA ET AL.

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DES:pdf

Attachments: Appendixes I, II, III

Patent Operations
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July 28, 2009

APPENDIX I APPEALED CLAIMS

1. A method for registering a wireless local area network as a wireless network routing area, comprising the steps of:
 determining a location of a service request from a user within a wireless network, which comprises a packet-based support node;
 determining whether the location is in or near a wireless local area network access point;
 if at or near the wireless local area network access point, maintaining packet data protocol context while servicing the service request using the wireless local area network such that interworking between the wireless local area network and the wireless network is provided.
2. The method as recited in claim 1, wherein the step of maintaining packet data protocol context while servicing the service request using the wireless local area network includes restricting radio signaling between a user and the wireless network while using the wireless local area network.
- 3-4 (canceled).
5. The method as recited in claim 1, further comprising the step of setting a periodic routing area update timer value while the user is in the wireless local area network to reduce signaling while a user is in the wireless local area network.
6. The method as recited in claim 1, further comprising the step of establishing packet switched signaling connection through the packet data protocol context when exiting the wireless local area network.
7. The method as recited in claim 1, further comprising the step of controlling loading of wireless cells by shifting user traffic service to wireless local area networks.

8. The method as recited in claim 1, wherein the interworking between the wireless network and the wireless local area network is provided by:

uniquely identifying the wireless local area network as the wireless network routing area of the wireless network; and

once identified, setting a routing area update timer to reduce a number of routing area updates to the wireless network.

9. The method as recited in claim 1, wherein the step of maintaining the PDP context includes maintaining the packet data protocol context to reduce handoff delay when re-entering the wireless network.

10. The method as recited in claim 1, further comprising the step of enabling wireless service providers to control loading of cells by shifting users to wireless local area networks by changing routing area identifiers of the users to that of a wireless local area network coverage area.

11. A system for employing a wireless local area network as a wireless network routing area, comprising:

a wireless network, which is capable of determining a location where a service request is made;

the wireless network comprising a packet-based support node, which determines if the request can be serviced through a wireless local area network;

means for maintaining packet data protocol context while servicing the request using the wireless local area network to provide smooth handoff between the wireless local area network and the wireless network.

12. The system as recited in claim 11, wherein the means of maintaining packet data protocol context includes a preservation function provided in a mobile station.

13. The system as recited in claim 11, further comprising a unique routing area identifier, which identifies the wireless local area network in the wireless network.

14. The system as recited in claim 11, further comprising a wireless local area network coverage area to reduce signaling while a user is in the wireless local area network coverage area.

15. The system as recited in claim 11, further comprising an interworking function for establishing and maintaining user services between the wireless local area network and the wireless network.

16. The system as recited in claim 11, wherein the wireless network includes a Universal Mobile Telecommunications System.

17. The system as recited in claim 11, wherein the means for maintaining packet data protocol context further comprises a radio access bearer setup procedure for establishing interworking between the wireless network and the wireless local area network.

18. The system as recited in claim 11, wherein the cellular network learns if a user is in a wireless local area network coverage area via a routing area identifier update message.

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APPENDIX II EVIDENCE

None.

APPENDIX III RELATED PROCEEDINGS

A previous appeal was filed on 12 November 2008. The Office communication of 13 April 2009 reopened prosecution in response to the brief filed on 29 December 2008, effectively dismissing the appeal.